

PHENIX WEEKLY PLANNING



11/19/2009

Don Lynch

Remaining Tasks for Shutdown 2009

Task

Start Date

End Date

Install new gap5 N cable & pipe supports, cables and piping and leak test piping

in progress

11/30

Close MMN Hatch and closeout WP

11/30

11/30

Install rack components in RPC3 N racks

in progress

11/30

Attach cables to RPC3 N racks and to Detector $\frac{1}{2}$ octants

in progress

11/30

Reconnect electric and fiber to EC

Done

Done

Install heaters and thermostat(s) for RPC3N thermal control

in progress

11/30

Reinstall PHENIX North tunnel shielding

in progress

11/20

Replace EC water hoses below EC and test

in progress

11/20

Reinstall ladder & dumb waiter on EC & Fold down EC platforms in IR

Done

Done

Move MMS north, Install MuID Collars

Done

Done

DC East and West repairs

in progress

11/25

Pink sheets, white sheets, blue sheets

in progress

12/1

Assemble shield wall base and wall in AH

in progress

11/30

Thanksgiving Holiday - no work

11/26

11/27

Roll in shield wall

11/30

11/30

Start Run 10, All shutdown activities completed

12/1

12/1



11/19/2009



Can we keep these?

Continuing Tasks currently underway (elec.)

Task

Start Date End Date

Remove temporary MegaPAC in sRPC1 rack and install new full MegaPAC and finish controls for it

In Progress

12/1

VTX/FVTX LV Dist system evaluation (VTX Done)

In Progress

12/1

Prep for production of up to 39 boards in 4 crates (VTX/FVTX)

In Progress

12/1

VTX/FVTX cooling system interlock design

Awaiting
more info

TBD

Evaluate possible design for 6x1 GL1 L1 triggers

DesignIn
Progress

12/1

AH Crane 110 switch for lockout

In Progress

12/1

Test/replace rack transient suppression

7/20

12/1

Cordless phones in tunnel

7/20

12/1

Individual relays on all HV supplies

7/20

12/1

More Continuing Tasks currently underway (mechanical)

Task	Start Date	End Date
Design supports for Beampipe upgrade	In Progress	11/30
Fan Tray replacements (as time permits)	In Progress	11/30
Design support for FOCal	In Progress	11/30
Design support for FVTX	In Progress	11/30
Design & Fabrication support for VTX	In Progress	11/30



Continuing Tasks currently underway (gas)

Task

Start Date End Date

Get AC's installed in mixing house



In Progress

12/1

Investigate shed/larger bottles for R134A

7/20

12/1

Replace damaged compressed air flowmeter

7/20

12/1

Add check valves to some supply lines (as needed)

7/20

12/1

Design and build heat exchanger for HBD system

In Progress

12/1

Replace/ regenerate HBD purifier and driers (late Fall)

In Progress

10/9

Send mass flowmeters out for recalibration (DC/PC, MuID, TOF.W)

In Progress

12/1

Replace/upgrade gas house PC's

In Progress

12/1

Run gas lines to North tunnel

7/20

12/1

Design and build gas humidifier

In Progress

12/1

Layout and build North distribution panel

In Progress

12/1

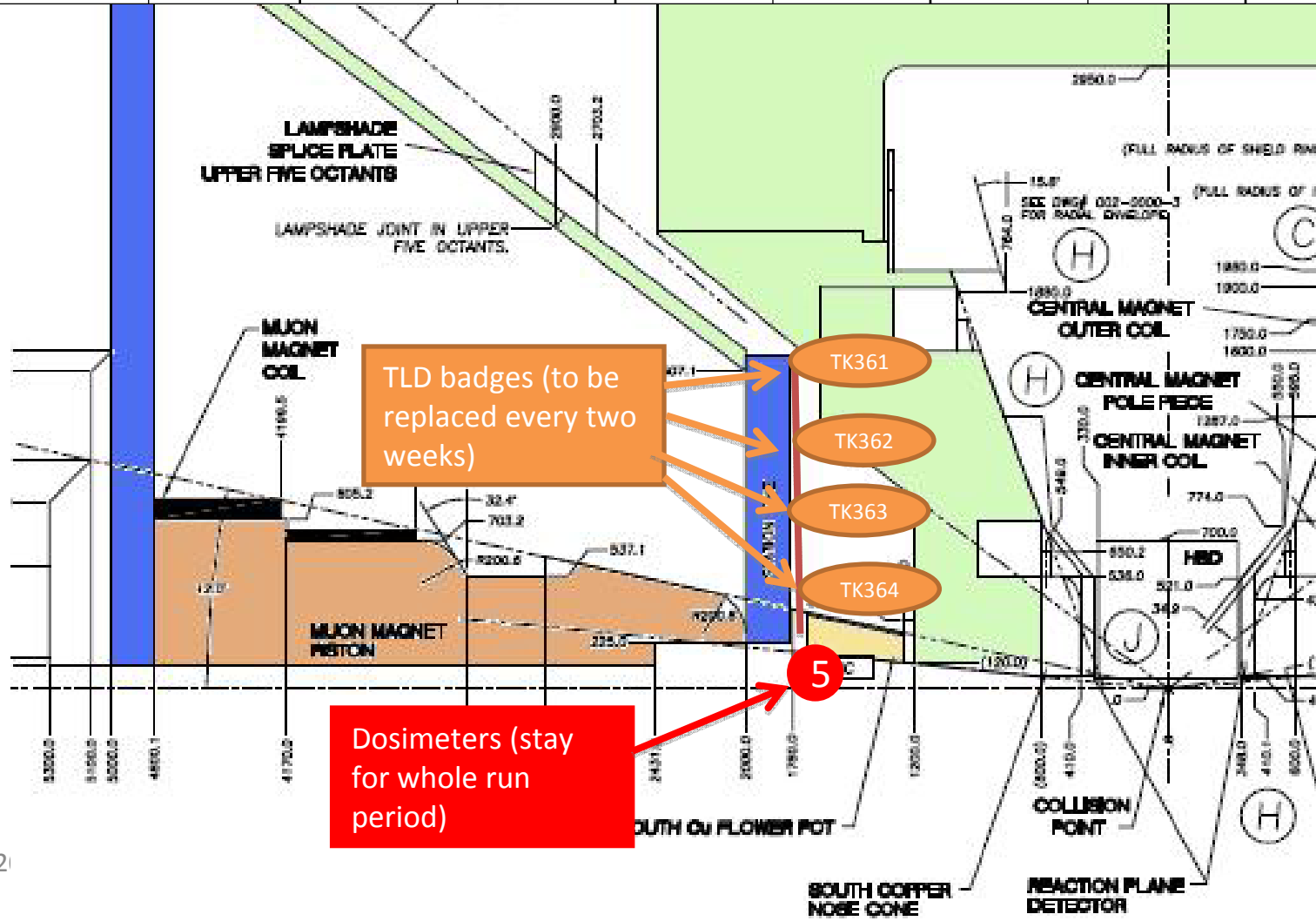
Preparation for Run10

RIKEN/RBRC

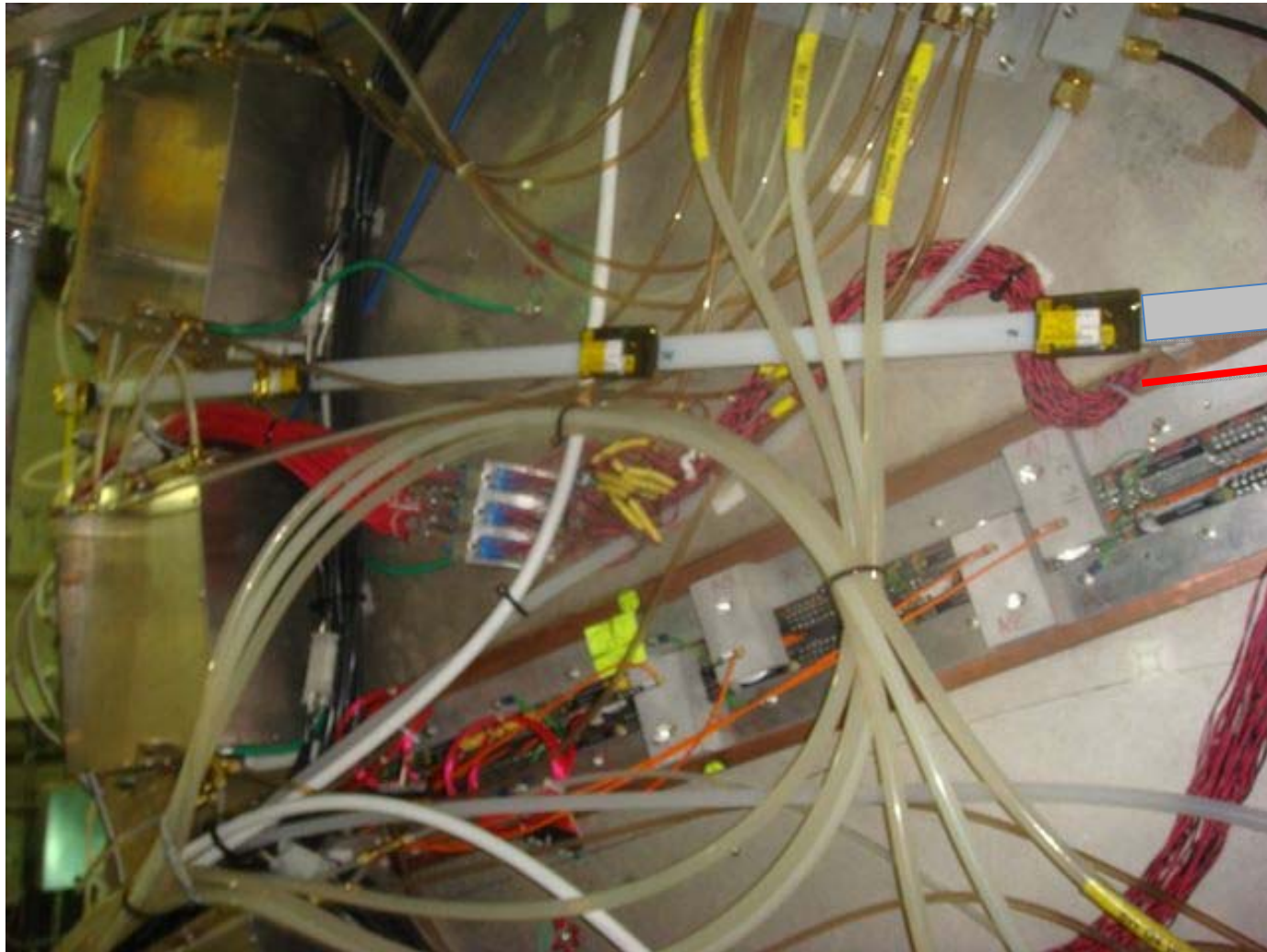
Itaru Nakagawa

Location of dosimeters in MuTr.S St.1

Distance from Beam Pipe	17"		32"		47"		62"	
	Film Badge	Cr39	Film Badge	Cr39	Film Badge	Cr39	Film Badge	Cr39
Nov. 11 ~ Dec. ?	TK364	1188326n	TK363	1188325n	TK362	1188324n	TK361	1188323n

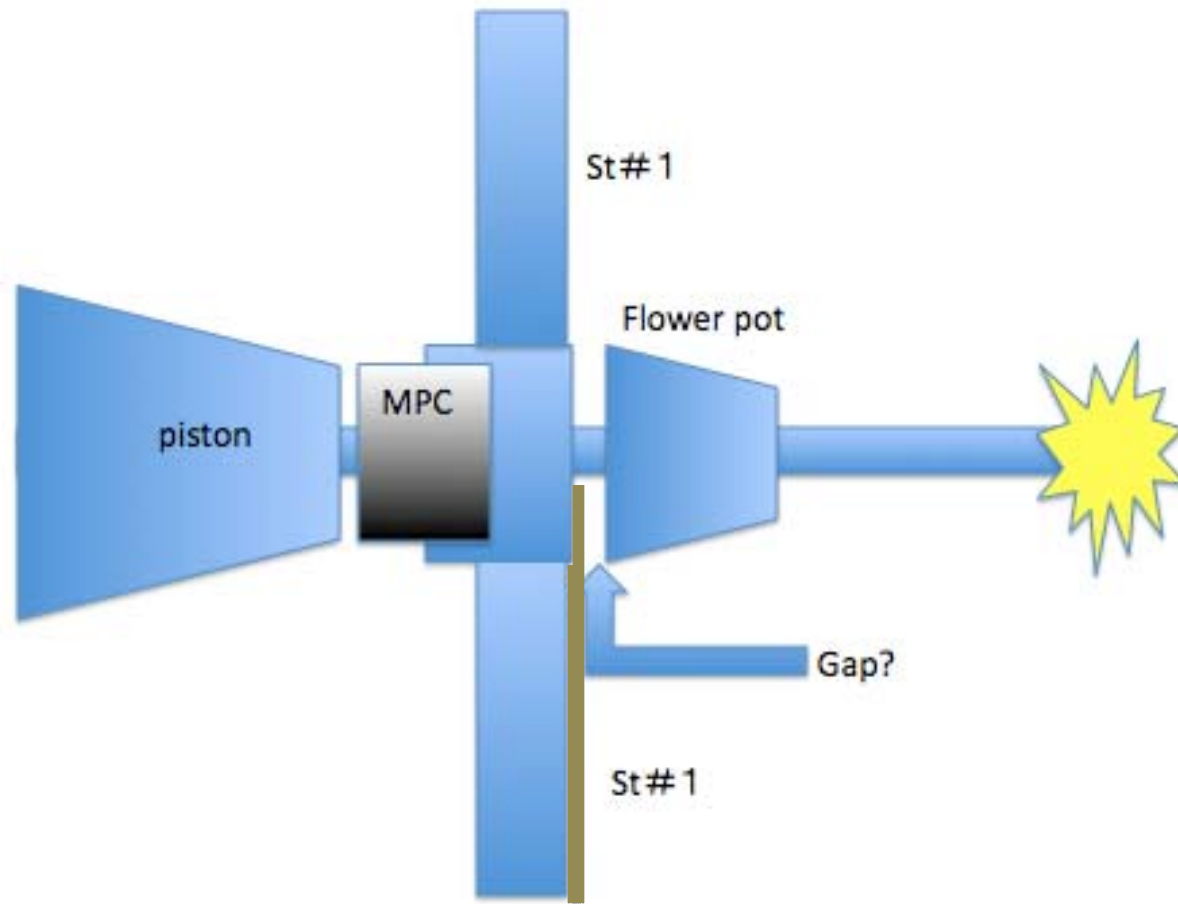


Dosimeter Extension



+ 10"

Dosimeter Extension



Short Term To Do List (from 10.29 report)

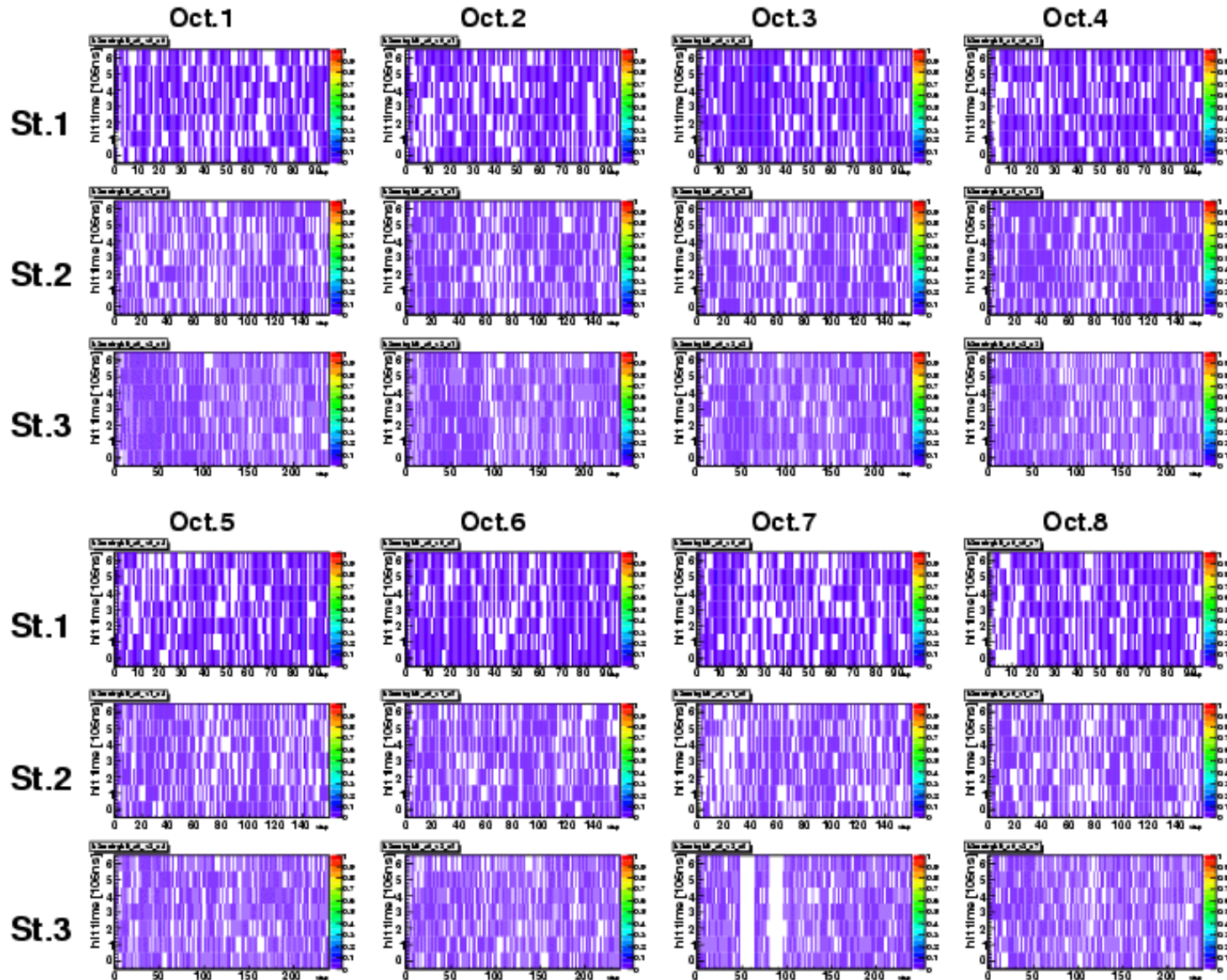
- OASys camera alignment ☐
- Swap LV distributor for St.1,Q4 w/ spare due to offset current ☐
- Inspect Thermocouple in St-2, Oct.7 (readout somewhat low ~ 33 degrees)
- North St-3, Oct-1 high fake hit rate issue
- BCLK Timing tune

Near Future Plan

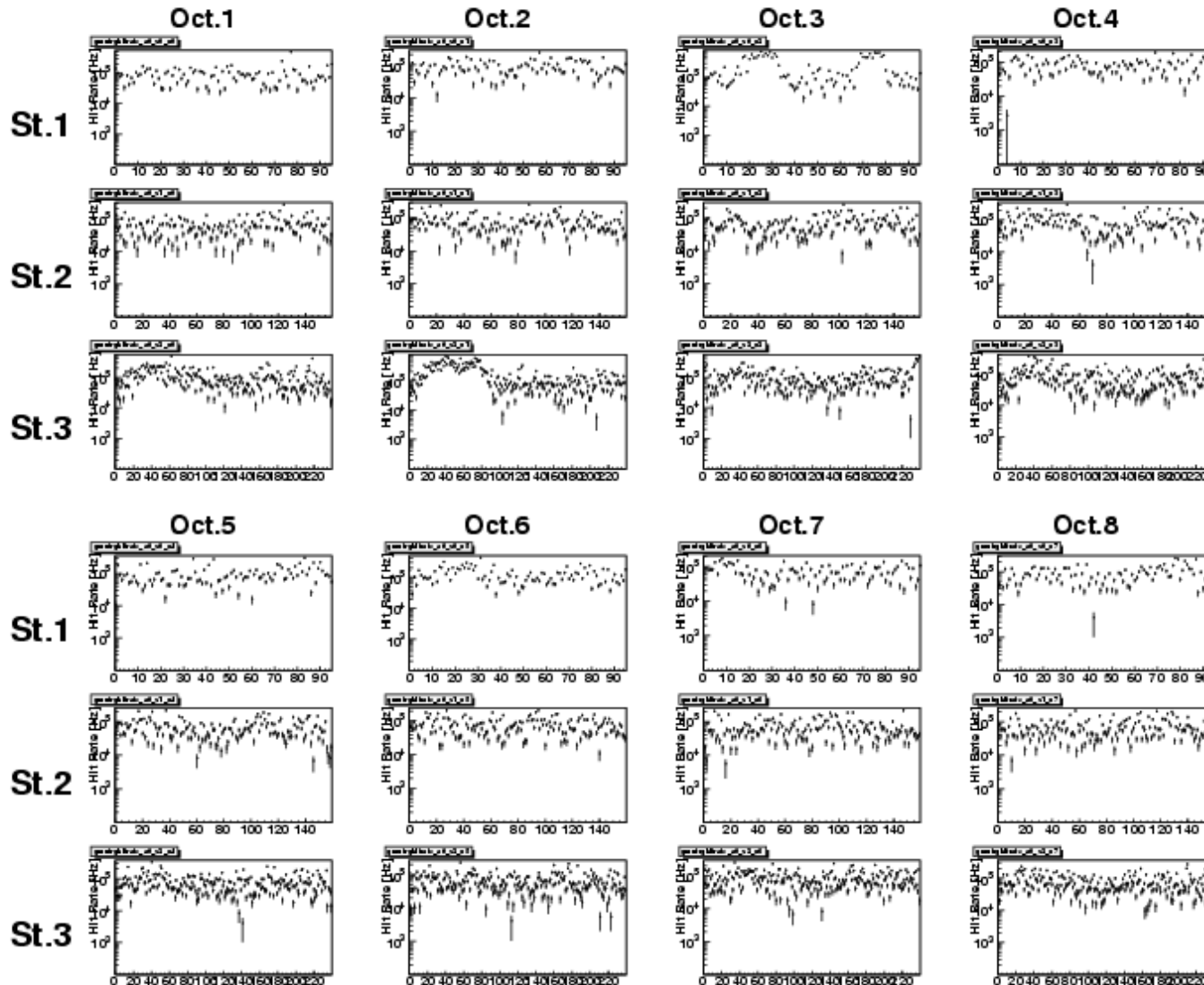
- Clean up test bench
- Organize Spare boards → bookshelf
- Channel Map → database
- Cosmic data taking from Dec.1
- MuTR Operating HV Values for Run10
 - Need to prove better resolution in Run9



Problem in ADTX



Was OK before

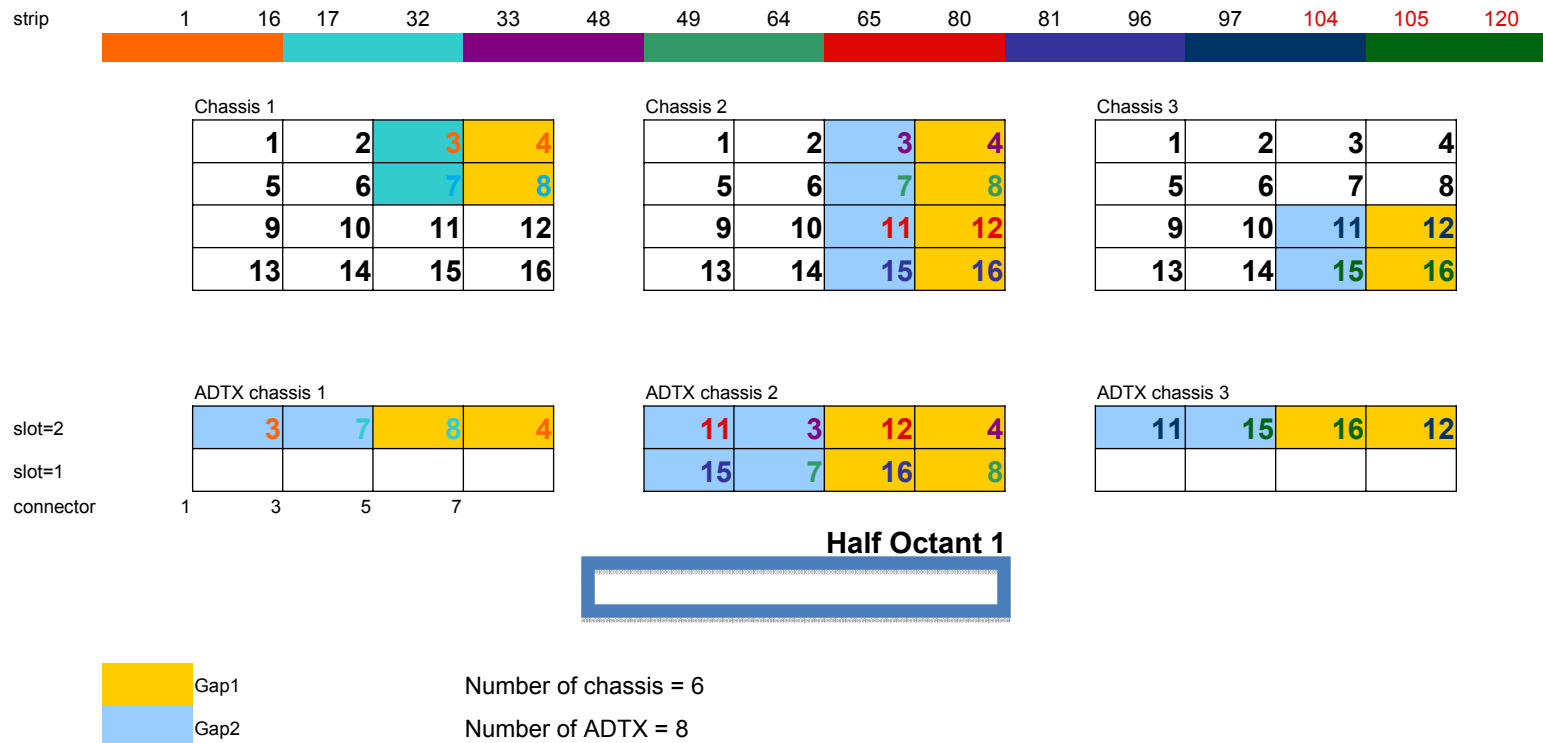


As of Oct.29
Right after
LV distributor
was replaced

Trace back history:
Nov.6 bad
Nov.5 measurment failed.
Nov.3 OK.
Nov.31 OK.
Thus the problem started
sometime between
Nov.3 and 6th.

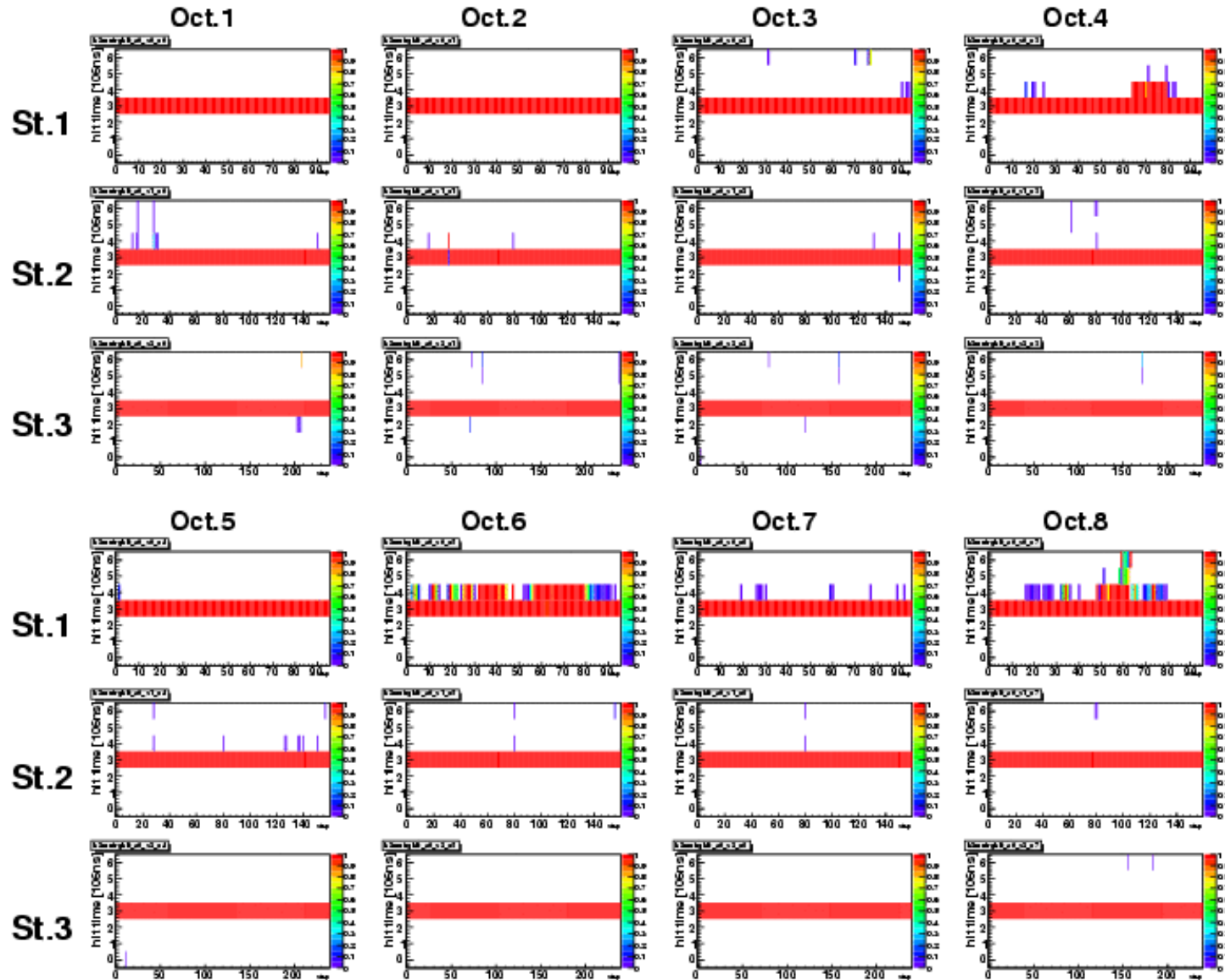
ADTX Chassis-2 Board-1

South arm, station 3, octant 2 and 7, non-stereo planes



The LV distributor broke for Chassis-2 channel in Oct-29 and replaced then.

With Calibration Pulse



Expected IR Configuration For Remainder of Shutdown '09

Now-Run Start MMS & CM in run position, EC and WC can be moved east west ~3 ft

These dates are approximate and subject to change

CM will not be moved for remainder of shutdown... no access to station 1 north

2009 Building Maintenance Issues

TECHNICAL SUPPORT NOON

- Roof leaks in utility bathroom at northwest corner behind tech offices and over door between rack room and assembly hall
- Heat wrap tape for trailer bathroom toilet drains to prevent freeze/clogging in winter.
- Improved Rack Room AC performance: New AC on order
- General maintenance for Trailer Offices and Gas Mixing House stairs, ramps and siding, gutters, etc. (cleaning and repairing worn/rotted wood): Carter has placed work orders
- Icy conditions at mixing house north stairs: Need new Mixing House Gutter







PHENIX LABORATORY

11/19/2009



11/19/2009



mfE8 feeds E7 and
E8 mod B and C

mfE5 feeds E6 and
E5 mod B and C

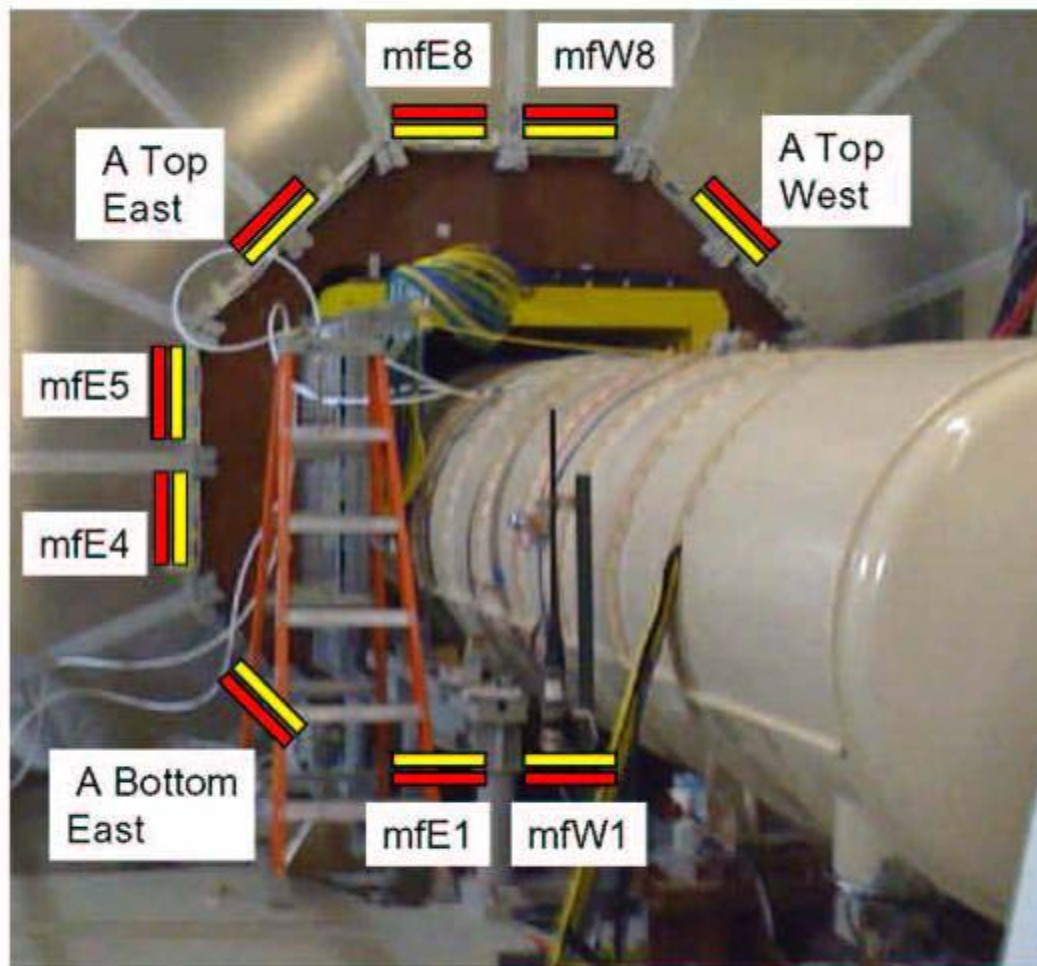
mfE4 feeds E4 and
E3 mod B and C

mfE1 feeds E2 and
E1 mod B and C

A Top East feeds
A mods on East top

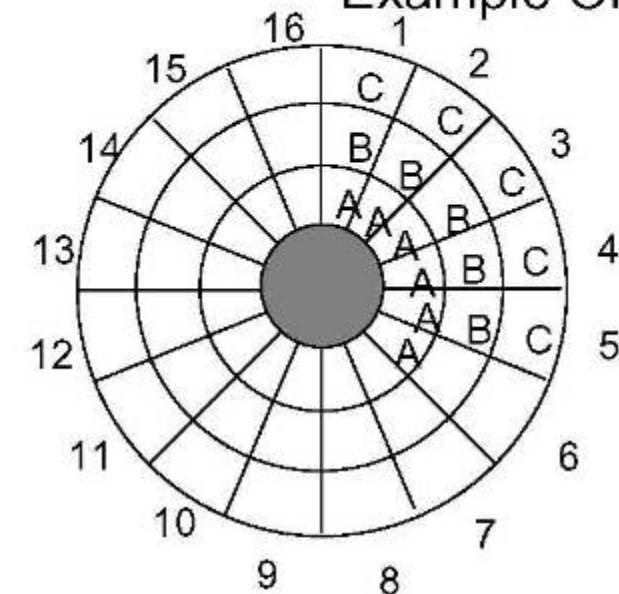
A Bot. East feeds
A mods on East Bot.

Same for west
Replce E with W ☺



Manifolds are 8 1/8npt and 2x1/4npt ends

Example Of Manifold Grouping

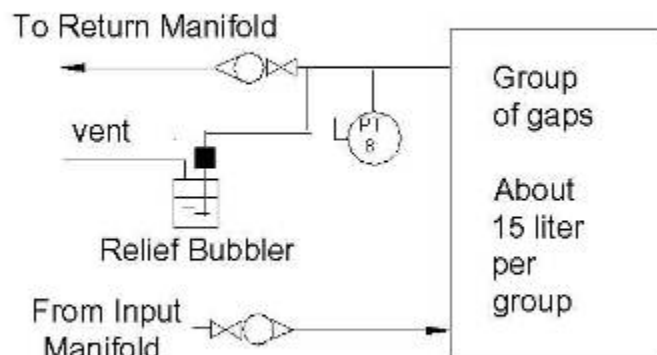


Gas connection in each gap (ie1A,1,B,1C) are brought to the gray area. There A13 to A4 are manifolded together to one flow meter. (about 30 liters volume).. A5-A12 are manifolded together. Volume of station about 275 liters

The outer can be manifolded in units of 4 as follows C13,B13,B14 AND B14(This gives about 13.5 liter). Similar groups of 4 around the detector. (c15,c16,b15,b16)

20 flowmeters per station. (10 in 10 out)
Pressure sensor on the output manifold of each set can be used to balance the output pressure of each set. Each flow meter should see 250 ccm at 1 turn every 2 hrs. Valves can be added to the manifold to isolate the detector gaps (a1,a2, etc) or lines can be capped if there is trouble.

Area in gray should be accessible at least during shutdowns.



1. Reminder ODH 0 in effect in tunnels (ODH 0 web course or C-A Access or Collider User training. As of ~12/1 ODH 1 will be in effect. This will require ODH 1 training (1 year) and escape pak training (3 years). Also requires medical waiver form. Each worker in ODH 1 area must have an escape pak and O2 monitor with them at all times.
2. Getting closer to winter. Be extra aware of slip hazards, icy conditions. Report potential problems before we have an accident.
3. CAD LOTO procedure revised: Be aware of "look-alike" equipment. Use barriers or postings as necessary to prevent confusion.

4. PHENIX Procedure Review Current Status:

147 Procedures Identified

80 (+4) Made Inactive (not currently in use, will require revision to re-activate if and when necessary, available for reference purposes)

12 CAD procedures relevant to PHENIX, all are current and up-to- date

40 (-3) PHENIX approved procedures.

10 (-16) are currently under review

30 (+13) are current and up-to-date

15 (-1) Proposed/Draft Procedures (never previously formalized)

Technical Support during Run 10:

- *Mechanical, Electrical & Gas system support*
- *Design, engineering, fabrication and testing for new beampipe*
- *Design, engineering, mechanical, electrical and gas system support for VTX, VTX support structure, VTX survey and VTX installation*
- *Mechanical, electrical & gas system support for RPC factory*
- *Engineering, design, procurement & fabrication for RPC3 South installation*
- *Facility planning maintenance & upgrade*
- *Mechanical, electrical and gas system support for future maintenance, repair & upgrades*

Projected Major Projects For 2010 Shutdown:

- 1. Install new beampipe*
- 2. Install VTX*
- 3. Install RPC3 South*
- 4. Existing subsystem maintenance & upgrade*
- 5. Facility maintenance and upgrade*
- 6. Support for future upgrades*

PHENIX
TECHNICAL
SUPPORT
GROUP

Where To Find PHENIX Engineering Info



No Meeting next week :

Turkey Day !!

*Spotted on
site recently*

Links for the weekly planning meeting slides, archives of past meeting slides, long term planning, pictures, videos and other technical info can be found on the PHENIX Engineering web site:

http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL_SSint-page.htm

